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On extralimital records of Hooded seals, *Cystophora cristata* (Erxleben, 1777), on the western European continental coast

By P. J. H. van Bree

Zoölogisch Museum, Universiteit van Amsterdam, Amsterdam, the Netherlands

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In a detailed article on the hooded seal, *Cystophora cristata*, Mohr (1963) also devoted a chapter to records of stragglers of this arctic species along European coasts. She listed nine animals found along the coast of Norway, six on the coasts of the United Kingdom, and only one from the continental coast of western Europe (northern Denmark to southern Spain). The latter concerned a young male, with a length of 125 cm, caught between Oleron Island and continental France, in July 1843 (see e. g. Robineau 1992). This specimen was to become the holotype of *Phoca isidorei* Lesson, 1843, a junior synonym of *Cystophora cristata.* Today, more than 30 years since publication of Mohr's (1963) article, at least 33 more specimens have become known from western European continental coasts (Tab. 1). In the present study not only the extralimital records are listed but also additional data on some of these records are presented. The numbering of records refers to the listing in table 1.

Animals 5 and 6, both from the Netherlands, most probably passed the floodgate which was constructed in the Oosterschelde, Province of Zeeland, in 1986. Animal 5 was transferred to the Seal Rescue Centre at Pieterburen, and, after recovery, it was marked and released in the North Sea. It returned, however, to the Netherlands' coast and was observed at the Engelsmanplaat, a high-lying shoal in the Wadden Sea. Some time later, it was caught again at the Leybucht in western Niedersachsen, Germany. It was set free again at Skagen in northern Denmark and was not observed thereafter. The animals 12 and 13 entered rivers and were found far from sea. The last one, found in the river Scheldt near the French-Belgium border, swam at least 640 km, if we take the town of Vlissingen (Flushing) as starting point of the trip. In this rather polluted river it passed thereby a number of locks; quite some performance!

In addition, an old extralimital record of hooded seal, which has not been mentioned in the zoological literature so far, may be rescued from obscurity here. This concerns a pregnant female, which was killed at the river Merwede, between Gorkum and Werkendam, Province of Zuid-Holland, the Netherlands, on 10 March 1600, and depicted in a plate by Julius Goltzius (Fig. 1). Identification is based on length (said to be nine feet, but prudently estimated as more than 2 m), weight (ca. 226 kg), and the spotted coat. Moreover, the seal carried a full-grown fetus. In grey seals, *Halichoerus grypus*, the pupping season is much earlier, while in common seals, *Phoca vitulina*, in the Netherlands, the reproduction season is from late June to early August. The state of pregnancy of the animal from 1 600 fits well with the known reproduction period of hooded seals. Seal 7 (Tab. 1) represents another pregnant specimen encountered on West-European coasts (see Ibáñez et al. 1988). There is also a record of a hooded seal giving birth on the coast of Norway, 7 April 1980 (Øritsland and Bondø 1980).

Table 1. List of extralimital records of hooded seals, *Cystophora cristata*, on the western European continental coast.

Nr	Sex	Locality	Départment/ Province/Land	Country	Date	Length (cm)	Weight (kg)	References
1	♀	Bidassoa, nr. Hendaye	Pyrénées-Atlantique	F	13. VII. 1978	164		Duguy (1979): Pouvreau et al. (1980)
2	♀	Island of Fanø	Ribe	DK	24. VIII. 1978	118	38	Wolff (1981): Tougaard (1987)
3	♂	Praia Verde, Monte Gordo	Algarve	P	24. VI. 1979	104	27	Reiner (1979
4	♂	Praia del Norte	Peniche	P	2. VI. 1980	150	94	Reiner (1980): Teixeira (1980)
5	♂	Kreekrak locks, nr. Rilland/Bath	Zeeland	NL	30. VII. 1981	175	±200	Wolff (1981): Borkenhagen (1994)
6	♀	Oosterschelde, nr. Ourwerkerk	Zeeland	NL	9. VI. 1982		29.2	't Hart in litt. (1990)
7	♀	Torre Zalabar 36°54′N, 6°24′W	Huelva	E	26. II. 1983	201	116	Ibañez et al. (1988)
8	♀	Playa de São Torpes (Sines)	Setúbal	P	17. VII. 1983	129		Ignacio and De Melo (1987)
9	♂	Jadebusen nr. Wilhelmshaven	Niedersachsen	D	21. VIII. 1984		40	Schumann (1986)
10	♂	Hemmes de Marck nr. Calais	Pas-de-Calais	F	3. IX. 1985	111	36	Duguy (1986)
11	♂	Sta. María de Oia	Pontevedra	E	V. 1986	100	25	Valeiras Mata (1995)
12	♀	Royan	Charente-Maritime	F	20. VII. 1986	139	73.5	Duguy (1987)
13	♀	Castet-en-Dorthe nr. Langon	Gironde	F	13. VIII. 1986	102	27	Duguy (1987)
14	♀	Kain-lez-Tournai locks nr. Tournai/Doornik	Hainaut	B	12. III. 1987	160	±120	't Hart in litt. (1987)
15	♂	off Comillas 43°22′4″N,4°17′W	Santander	E	24. V. 1987	159		García Castrillo et al. (1988)
16	♀	Rocher des Charpentiers nr. Saint Nazaire	Loire-Atlantique	F	19. VII. 1988	105	26	Duguy (1989)
17	♂	N of Cadzand	Zeeland	NL	20.X. 1988		120	't Hart in litt. (1988)
18	♀	Puerto de Huelva	Huelva	E	9. VI. 1990	94	19	Van der Kamp in litt. (1991): Cebrián in Avella et al. (1993)
19	♀	Playa de las Lances nr. Tarifa	Cádiz	E	3. VII. 1990	105	21	Van der Kamp in litt. (1991): Cebrián in Avella et al. (1993)
20	♂	Norden	Niedersachsen	D	29. VIII. 1990	130	39	Schumann in litt. (1994)
21	♂	Isalnd of Vlieland	Friesland	NL	5. IX. 1990		43	't Hart in litt. (1990)
22	♂	Sables d'Olonne	Vendée	F	6. VII. 1992	±160	110	Duguy in litt. (1992)
23	♀	Gravelines	Pas-de-Calais	F	20. IX. 1992	129	48	Duguy in litt. (1992): 't Hart in litt. (1992)
24	♀	Island of Amrum	Schleswig-Holstein	D	18. VIII. 1993	115	29	Borkenhagen (1994): Heidemann in litt. (1994)
25	♀	Island of Langeoog	Niedersachsen	D	21. IX. 1994		36.5	Schumann in litt. (1994)
26	♀	Dagebüll – Hafen	Schleswig-Holstein	D	29. VII. 1995	114	33	Wollny-Goercke in verbis (1996)

Table 1. (Continued)

Nr	Sex	Locality	Départment/ Province/Land	Country	Date	Length (cm)	Weight (kg)	References
27	♂	Jadebusen (Dangast)	Niedersachsen	D	5. X. 1995	95	30	Schumann (1996)
28	♂	Island of Texel (Oudeschild)	Noord-Holland	NL	31. VIII. 1996		36	Brugge in verbis (1996)
29	♀	Boulogne-sur-Mer	Nord	F	5. IX. 1996	103	34	't Hart in verbis (1996)
30	♀	Dike near Ferwerd	Friesland	NL	14. IX. 1996	112	31	Vedder in verbis (1996)
31	♀	Scheveningen harbour	Zuid-Holland	NL	29. IX. 1996	107	34	't Hart in verbis (1996)
32	♂	Wilhelmshafen	Niedersachsen	D	30. IX. 1996	106	40	Rabenstein in verbis (1996)
33	♀	Island of Vlieland (de Hors)	Friesland	NL	5. X. 1996	106	38.5	Vedder in verbis (1996)
34	♂	Island of Baltrum (Ostende)	Niedersachsen	D	8. X. 1996	95	34	Rabenstein in verbis (1996)

Looking at the weights and lengths of the animals in table 1, it becomes clear that the majority of hooded seals encountered along the continental West-European coasts are animals of less than one year of age. Some apparently refer to animals 1–2 years old (13, 16, 21), while two others were subadults or adults (5, 7).

At birth, hooded seals have a length of about 105 cm and a weight of ca. 20 kg. Within the very short lactation period of only four days, they gain more than 5 kg weight per day. They shed their first coat (lanuga) intra-uterine and thus are born with their immature coat, which is blue-grey on the back and silvery-grey laterally and ventrally. It is for this pelt, that "blue-backs" were and are killed in great numbers. They loose this immature coat at an age of about 14 to 15 months. Most of the hooded seals found on European coasts still have this coat. These animals are rather easy to recognize by their relatively large size, their rather broad heads, and their silvery-blue pelts.

After their moult they become light-grey with irregular brown-black spots and blotches; the front of their heads and their fore-flippers are almost black. They keep this type of coat their whole lives. Adult males can inflate in a spectacular way the dorsal part of their noses (the hoods) and also a red bladder (the red very elastic nasal septum), can be forced out of one nostril. The chance, however, that we will see the inflated hood and the red nose bladder on West-European coasts is rather small as till now no full-grown males have been encountered.

Adult females can reach a length of 200 cm and a weight of between 140 to 300 kg; males a length of 260 cm and a weight of between 190 to 350 kg. Skulls of adult specimens can easily be identified. Compared to the length of the skull, they are very broad and the facial part of the skull is rather small as compared to the length of the braincase (see Duguy and Robineau 1992). Skulls of young hooded seals are still more *Phoca*-like but also can be recognized by their width.

Like adults, intact young hooded seals are also rather easily recognized. On one occasion, however, when a young hooded seal was brought in, the author witnessed that three of five naturalists present identified the animal as an aberrant common seal, *Phoca vitulina*, thus demonstrating that it is very conceivable that young hooded seals have been regularly misidentified in the past. This would explain the very small numbers of extralimital records in the past. Presumably, the increase of extralimital

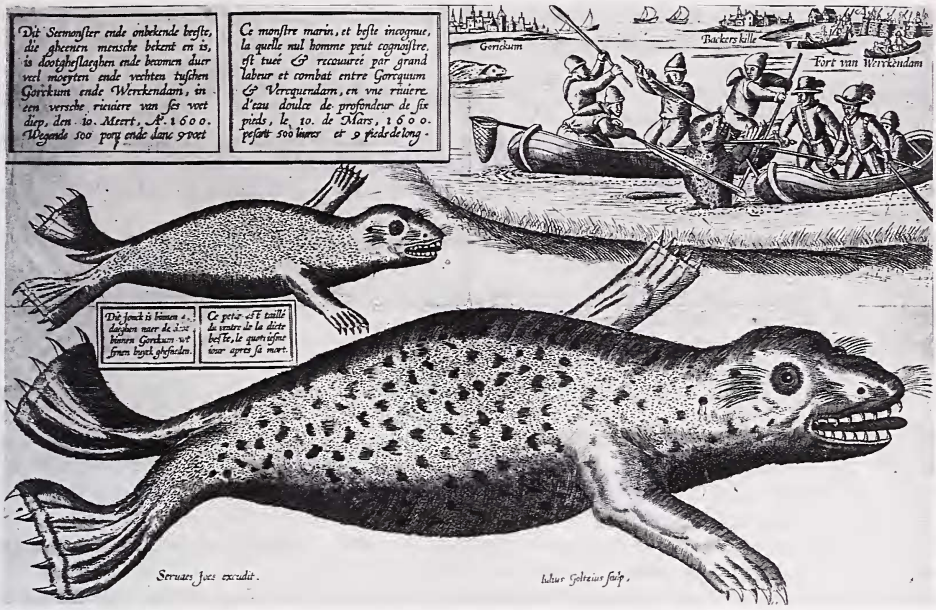

Fig. 1. Print of a pregnant hooded seal and its mature fetus killed in the river Merwede, between Gorkum and Werkendam, the Netherlands, on 10 March 1600. JULIUS GOLTZIUS fecit. Published by courtesy of the Museum van Gijn, Dordrecht.

records during the last decades is for the most part, if not entirely, due to increased observer effort and the availability of better identification manuals rather than to a more frequent occurrence of the species. In addition, the establishment of seal rescue centres has provided the opportunity to observe and study stranded seals at close quarters and to identify them correctly. This situation is comparable to that in ringed seals, *Phoca hispida*, and harp seals, *Phoca groenlandica*, extralimital records of which have also increased significantly in recent years (cf. VAN BREE 1996, VAN BREE et al. 1994).

It is clear, however, that concerning the last animals we have to do with a kind of invasion. In view of the localities where the animals have been found, one gets the impression that the seals did not come from the north along the Scandinavian coast, but directly from the Arctic in a SSE direction. Concerning the cause of the invasion nothing can be said yet.

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References

AVELLÁ, F.; CASTELLS, A.; MAYO, M. (1993): Los pinnípedos de las costas atlánticas y cantábricas de la península Ibérica. Quercus **85**, 29–34.

Borkenhagen, P. (1994): Nachweise nichtheimischer Robbenarten (*Odobenus rosmarus*, *Phoca hispida*, *Phoca groenlandica*, *Cystophora cristata*) an den Küsten Schleswig-Holsteins, Säugetierk Inf. **3**, 661–671.

Bree, P. J. H. van; Vedder, E. J.; 't Hart, L. (1994): Over zadelrobben, *Phoca groenlandica*, op de kust van continentaal West-Europa. Lutra **37**, 97–105.

Bree, P. J. H. van (1996): Extralimital records of the Ringed Seal, *Phoca hispida* Schreber, 1775, on the West-European continental coast. Bonner Zool. Beitr. **46**, 377–383.

Duguy, R. (1979): Rapport annuel sur les Cétacés et Pinnipèdes trouvés sur les côtes de France. Ann. Soc. Sci. nat. Charente-Maritime **6**, 463–474.

Duguy, R. (1980): Rapport annuel sur les Cétacés et Pinnipèdes trouvés sur les côtes de France. Ann. Soc. Sci. nat. Charente-Maritime **6**, 615–632.

Duguy, R. (1986): Rapport annuel sur les Cétacés et Pinnipèdes trouvés sur les côtes de France. Ann. Soc. Sci. nat. Charente-Maritime **7**, 507–522.

Duguy, R. (1987): Rapport annuel sur les Cétacés et Pinnipèdes trouvés sur les côtes de France. Ann. Soc. Sci. nat. Charente-Maritime **7**, 617–639.

Duguy, R. (1988): Les phoques des côtes de France. Ann. Soc. Sc. nat. Charente-Maritime, Suppl. **1988**, 1–52.

Duguy, R. (1989): Rapport annuel sur les Cétacés et Pinnipèdes trouvés sur les côtes de France. Ann. Soc. Sci. nat. Charente-Maritime **7**, 781–808.

Duguy, R.; Robineau, D. (Hrsg.) (1992): Meeressäuger. Teil II: Robben. Handbuch der Säugetiere Europas. Wiesbaden: Aula Verlag.

Garcia-Castrillo, G.; Cendrero, O.; Perez, C.; Nores, C. (1988): Les mammifères marins du Nord de l'Espagne en 1987. Cons. internat. Explor. Mer; C. M. 1988/N: **4**, 1–4.

Ibáñez, C.; Delibes, M.; Castroviejo, J.; Martín, R.; Beltrán, J. F.; Moreno, S. (1988): An unusual record of Hooded Seal (*Cystophora cristata*) in SW Spain. Z. Säugetierkunde **53**, 189–190.

Ignacio, A. M.; Melo, A. de (1987): Portugal-Marine Mammal Committee. Internat. Counc. Explor. Sea; C. M. 1987/N: **1**, 20–22.

Mohr, E. (1963): Beiträge zur Naturgeschichte der Klappmütze, *Cystophora cristata* Erl., 1777. Z. Säugetierkunde **28**, 65–84.

Øritsland, T.; Bondø, G. (1980): Klappmyssunge født på norskekysten. Fauna **33**, 74–76.

Pouvreau, B.; Duguy, R.; Alzieu, Cl; Babin, Ph. (1980): Capture d'un phoque à crête, *Cystophara cristata* (Erxleben, 1777), sur la côte française atlantique et recherches sur sa pathologie. Bull. Centr Etud. Rech. sci. Biarritz **13**, 7–12.

Reiner, F. (1979): Notas sobre a ocurrência de alguns pínipedes na costa portuguesa. Mems. Mus. Mar, Portugal **1**, 1–24.

Reiner, F. (1980): Nota sobre a segunda ocorrência de uma foca de mitra, *Cystophora cristata* (Erxleben, 1777), nas castas de Portugal. Mems Mus. Mar. Portugal **1**, 1–24.

Robineau, D. (1992): Les types de carnivores marins (pinnipèdes) actuels du Muséum national d'Histoire naturelle: Otaridae et Phocidae. Bull. Mus. natl. Hist. nat. Paris, (4) **14** (A), 251–267.

Schumann, W. (1986): Dokumentation, Nr 5, 1986. Seehundaufzucht und Forschungsstation Norden-Norddeich 1–67.

Schumann, W. (1996): Seehunde und Meeressäuger: Dokumentation 1995. Seehundaufzucht und Forschungsstation Norden-Norddeich 1–64.

Teixeira, A. M. (1980): Sobre o aparecimento de dois mammifères marin hos na costa portuguesa – *Cystophora cristata* (Erxleben, 1777) e *Balaenoptera physalus* (Linnaeus, 1758). Rel. Activades do Aquario Vasco da Gama **7**, 1–11.

Tougaard, S. (1987): Første fund af klapmyds (*Cystophora cristata*) i Danmark. Flora og Fauna **93**, 75–76.

Valeiras Mata, X. (1995): Varamento dunha foca de capelo, *Cystophora cristata* (Erxleben, 1777), na Costa de Galicia no 1986. Eubalaena, **7**, 6–11.

Wolf, W. J. (1981): The status of marine mammals in the Wadden Sea area: 7–14. In: Marine mammals of the Wadden Sea. Ed. by P. J. H. Reynders and W. J. Wolf. Leiden, St. Veth tot Steun aan Waddenonderzoek. Pp 7–14.

Author's address: Dr. Peter J. H. van Bree, Zoölogisch Museum, Universiteit van Amsterdam, Mauritskade 61, NL-1092 AD Amsterdam.